

Thermal Imaging InfraRed Cameras

Fusion (PIP) Feature for Non-invasive monitoring and diagnosing of building conditions



FLIR b60 — Scalable Fusion picture in picture feature permits you to resize the thermal image as needed on a large 3.5" color display

FLIR b-Series Features

- Latest Infrared Detector Technology
- Fusion Picture in Picture (PIP)
- Bright LED Lamps for Quality Visible Images
- Thermal Sensitivity of <math><0.1^{\circ}\text{C}</math> @ 25°C
- Instant imaging — Captures entire room to reveal wet conditions behind surfaces, such as enameled walls and wallpaper and even in places where moisture meters can't reach
- Insulation Alarm — Easily detects areas that don't fulfill the insulation requirements
- Dew Point Alarm — displays areas with risk of surface condensation where mold growth could occur
- Visible Light Digital Camera — Up to 2.3MP resolution with LED lamps provides sharp images regardless of lighting conditions
- Fusion Picture in Picture (PIP) — Displays thermal image super-imposed over a digital image
- 0.08°C Thermal Sensitivity — Provides high resolution needed to find problems faster and easier (0.1°C Thermal Sensitivity for FLIR b40 and b50)
- Optimized Temperature Range — Measures from -4 to 248°F (-20 to 120°C) targeting building applications
- Thumbnail Image Gallery — Allows quick search of stored images
- Laser LocatIR™ Pointer — Pinpoints the hot spot on the IR image with the real physical target (FLIR b50 and b60 only)
- Radiometric JPEG Images — Patented technology used to save images in standard JPEG format for easy e-mailing and analysis using QuickReport™ PC Software (included)
- 1GB microSD Card — Stores more than 1000 Radiometric JPEG images
- Li-Ion Rechargeable Battery — Replaceable battery lasts for 5hrs of continuous use
- Lightweight — Weighs only 1.3lbs
- Easy One-handed Operation
- 3.5" LCD with Razor Sharp Resolution
- Convenient Thumbnail Image Gallery
- Area (Min/Max) Mode — Spot marker shows the Minimum or the Maximum Temperature reading within the selected area (FLIR b50 and b60 only)
- Includes — 1GB micro SD Card, miniSD adaptor, Li-Ion rechargeable battery, power supply, QuickReport™ software, USB cable, lens cap, hand strap, and heavy duty case

FLIR b40 Additional Features

- 0.6MP Visible Light Camera resolution
- Picture in Picture (PIP) fixed
- 14,400 pixels (120 x 120)

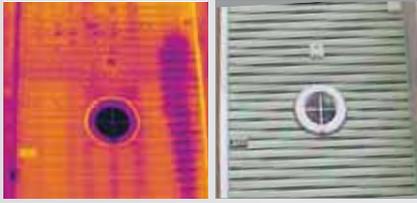
FLIR b50 Additional Features

- 2.3MP Visible Light Camera resolution
- Picture in Picture (PIP) with 3 fixed steps
- 19,600 pixels (140 x 140)
- Built-in Laser LocatIR™ pointer

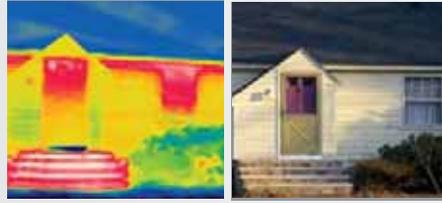
FLIR b60 Additional Features

- 2.3MP Visible Light Camera resolution
- Scalable Picture in Picture (PIP) feature (see right illustration)
- 32,400 pixels (180 x 180)
- Built-in Laser LocatIR™ pointer
- Laser Marker Function
- Auto Hot/Cold spot marker function shows a spot within the area that automatically finds the hottest or coldest spot within the box

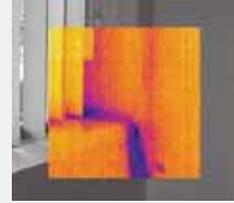
Applications



Moisture and Water Leak: Shows the path of a serious leak, completely hidden within the wall where mold growth may occur.



Building Inspection: For inspecting structural differences in homes or commercial buildings



FUSION PIP Image of Heating and Cooling: Identifies faulty building insulation where heat loss or AC cooling is present



FUSION PIP Image of Water Leak: Hidden water leak from the ceiling



The Difference is Training Insurance companies, restoration firms, building owners, and thermographers already involved in building maintenance and operations require a thorough applications training curriculum leading to certification in infrared building science. In response, the Infrared Training Center (ITC) and the Building Science Institute (BSI) have developed a course for those wishing to receive Building Science Certification. These courses address the Best Practices of the cleaning and restoration industry with content drawn from extensive field experience in thermography and building construction. They include references to actual cases illustrating how IR thermography has pinpointed sources of building moisture, provided definitive Cause and Origin data, enabled energy savings, and prevented incipient catastrophes. The Building Science series emphasizes practical real-world skill building, and includes infrared theory relevant to these skills.

FLIR b-Series Specifications

Features	FLIR b40	FLIR b50	FLIR b60
Temperature range	-4°F to 248°F (-20°C to 120°C)	-4°F to 248°F (-20°C to 120°C)	-4°F to 248°F (-20°C to 120°C)
Temperature accuracy	±2°C or ±2% of reading	±2°C or ±2% of reading	±2°C or ±2% of reading
Image Storage (1GB micro SD card)	1000 Images	1000 Images	1000 Images
Emissivity Table	0.1 to 1.0 (adjustable)	0.1 to 1.0 (adjustable)	0.1 to 1.0 (adjustable)
Imaging Performance / Image Presentation			
Field of view/min focus distance	25° X 25°/0.10m (3.9")	25° X 25°/0.10m (3.9")	25° X 25°/0.10m (3.9")
Thermal sensitivity (N.E.T.D)	<0.1°C at 25°C	<0.1°C at 25°C	<0.08°C at 25°C
Detector Type - Focal plane array (FPA) uncooled microbolometer	14,400 pixels (120 x 120)	19,600 pixels (140 x 140)	32,400 pixels (180 x 180)
Spectral range	7.5 to 13µm	7.5 to 13µm	7.5 to 13µm
Display	3.5" color LCD	3.5" color LCD	3.5" color LCD
Video output	MPEG-4 via USB	MPEG-4 via USB	MPEG-4 via USB
Image Modes	Thermal, Visual, Fusion	Thermal, Visual, Fusion	Thermal, Visual, Fusion
Fusion Picture in Picture (PIP)	Fixed	3 fixed steps	Scalable
Visible Light Camera Resolution	0.6 Megapixels	2.3 Megapixels	2.3 Megapixels
Laser / Classification	—	Yes / Class 2	Yes / Class 2
Laser Type	—	Semiconductor AlGaInP Diode Laser: 1mW/635nm	Semiconductor AlGaInP Diode Laser: 1mW/635nm
Laser Marker Function	—	—	OnIR image
Spot (center) Measurement mode	Yes	Yes	Yes
Auto Hot/Cold Spot Marker	—	—	Yes
Area (min/max) Measurement mode	—	Yes	Yes
Image Controls (All models)	Palettes (Iron, Rainbow, and Black/White), level, span, auto adjust (continuous/manual)		
Focus	Manual	Manual	Manual
Set-up controls (All models)	Date/time, info, LCD intensity, power down, and 21 languages		
Battery Type/operating time	Li-Ion/ 5 hours, Display shows battery status		
Dimensions/Weight	9.3x3.2x6.9" (235x81x175mm)/<1.32lbs (600g), including battery		

EXTECH Ordering Information



Part Number	Product Description
FLIR b40	Thermal Imaging InfraRed Camera
FLIR b50	Thermal Imaging InfraRed Camera with Laser
FLIR b60	Thermal Imaging InfraRed Camera with Laser and scalable PIP
ACCESSORIES	
1196398	Li-Ion Rechargeable Battery
1910399	AC Adapter Charger (110-240V, U.S. Plug)
1910490	Cigarette Lighter Adapter Kit, 12VDC (1.2m cable)
1196474	2-Bay Battery Charger including Power Supply (U.S. plug)
1122000	Camera Pouch Case
CERTIFICATION TRAINING	
ITC LEVEL 1B	Certification in Infrared Building Science per attendee (3.5 Day Class)



QuickReport™ PC software enables user to analyze Temperature of all thermal pixels of any FLIR Camera JPEG images